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| 10/516,994 | 12/06/2004 | Yuichi Inada | 59559.00015 | 1323 |

32294 7590 12/14/2007
SQUIRE, SANDERS & DEMPSEY L.L.P.
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| EXAMINER |
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HEITBRINK, JILL LYNNE

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| ART UNIT | PAPER NUMBER |
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1791

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12/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/516,994 | Applicant(s) INADA ET AL. | |
| | Examiner Jill L. Heitbrink | Art Unit 1791 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Specification

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Nov. 8, 2007 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-6 and 9-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The support member extending rearward from a position "at" a front end portion of the machining member does not have support in the original specification. The specification discloses the support member as being bearing 49 (page 4, lines 16 and 17) and the machining member as being cut punch 48 (page 3, lines 9 and 10). The front end portion of the machining member is not clearly defined in the specification to have any specific length or size. The front end portion of the

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machining member would direct a person of ordinary skill in the art to the top portion of the machining member which contacts the molding material. Page 27, lines 19-21 states "The diameter of the front end portion of the cut punch 48 can be reduced so as to enable the bearing 49 to be disposed in the vicinity of the front end of the cut punch 48". Page 30, lines 2-7 define the stepped portion 113 which forms the smaller diameter portion of the cut punch. Therefore the front end portion of the cut punch or machining member would have been the length from the stepped portion 113 to the surface of the mold cavity. Additionally, the wording in the claims is broader than these specific elements.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 11-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claims 11 and 12 are directed to "A bush" (line 1). However, the bush is only element 47 in the specification. The claims are unclear as to how the other elements in the claim limit the bush. Applicant argues the claims as if the other elements are part of the bush. However, the other elements are part of the disc-molding mold.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-6 and 9-12 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Japanese Publication 2003-165146. Cylinder 27 (bush) surrounds the machining member (gate cut sleeve 29) and has a flow passage (28) in a front end portion. Fig. 1 shows the radial dimension of the flow passage of the sprue bush being greater than an inner diameter of a supply passage for supplying temperature control medium to the flow passage of the sprue bush. A support member (32) extends rearward from a position near the flow passage formed in the front end portion of the bush and the supply passage (28D) for supplying the temperature control medium to the flow passage of the bush is formed along the support member bearing 32 as shown in Fig. 3. Additionally, the front end portion of the machining member does not have any defined length or size or relative deminsion to other elements in the claims.

9. Additionally, the claims are written in such broad language that another characterization of JP '146 is equivalent to the claims. In this second correspondence, the ejector pin 30 is equivalent to the machining member, the cylinder 27 is equivalent

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to the bush, and the gate cut sleeve 29 is equivalent to the support member disposed between the machining member 30 and the bush 27 wherein the support member 29 extends rearward from a position at the front end portion of the machining member 30.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 1-6 and 9-12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Publication 2003-165146. The providing a lubricant for the bearings 32 would have been obvious to a person of ordinary skill in the art of bearings and moving members. The discharge passage would clearly be the open space below the bearing. The positioning of the bearing near the front end portion of the machining member (gate cut sleeve 29) would have been obvious to a person of ordinary skill in the art depending upon the total length of the gate cut sleeve so as to provide the desired sliding motion of the gate cut sleeve 29 within the cylinder 27. The process of operating the support member would have been obviously similar to the operation of the bearing in JP'146 since the position near the front end portion of the machining member would operate in a similar manner. The product produced by JP'146 would have obviously been similar to that claimed since the bearing does not contact the molded product.

Response to Arguments

12. Applicant's arguments filed Oct. 9, 2007 and Nov. 8, 2007 have been fully considered but they are not persuasive.

13.

14. Applicant (third paragraph of page 13 in amendment filed April 9, 2007) argues that in JP'146 the bearing 32 extends rearward from a position near the central portion of the sliding guide tube 27 rather than from a position near the front end portion of the sliding guide tube 27. However, this argument is in error. The machining member of the claim is equivalent to the gate cut sleeve 29, see applicant's arguments top of page 13. As shown in Fig. 1 and 3 of JP'146 the bearing upper end is at a location about half the distance from both the gate cut sleeve cavity end and the center of the gate cut sleeve. This location is considered to be within the meaning of "near" since the bearing 32 upper end is located near the cavity side of the center of the gate 29.

Allowable Subject Matter


15. Claim 7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. Applicant's arguments, see amendment page 14, filed April 9, 2007, with respect to JP'146 have been fully considered and are persuasive.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill L. Heitbrink whose telephone number is (571) 272-1199. The examiner can normally be reached on Monday-Friday 9 am -2 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Jill L. Heitbrink
Primary Examiner
Art Unit 1791

jlh